

## NOTES AND REVIEWS

*Abstracts of literature on biometeorology.*—The increasing interest in climatic and meteorological factors in their relation to biology, medicine, and agriculture is one of the significant trends of modern science. Ecologists have long appreciated the importance of temperature, humidity, radiation, barometric pressure, wind movement, and meteorological factors generally, as important factors in controlling the distribution and abundance of animals and plants. Foresters, horticulturists, and entomologists have likewise been concerned with the interrelationships of climatic and meteorological factors to the organisms with which they work. The developments of air conditioning and aviation have lately brought other important research groups into the field, resulting in an increasing amount of research. This is often the work of individuals and groups not now in effective contact with biologists, and frequently appears in periodicals not commonly consulted by biologists.

In all civilized nations diverse research groups have sprung into being which, though they often devote much attention to the same fundamental natural forces, still work in practical isolation from each other, with a different background of training, and associations, belonging to different societies meeting at different times and places, publishing in different journals, reading different literature, investigating different types of things. These groups, however, are beginning to apply common ideas

and common methods to the study of situations that are basically similar. For example, techniques and concepts derived from a study of the influence of weather factors on the spread of influenza or the common cold are likely to have a very high transfer value as applied to the study of the spread or survival of plant disease or economic insects. Conversely, it should be possible for research workers in the field of public health to make use of many findings of the entomologists, foresters, ecologists, plant pathologists, and other biological groups.

Abstracting journals are admirably suited to the sort of synthesis of fundamental knowledge that this situation demands; and the journal *Biological Abstracts* has recently undertaken a more complete abstracting and segregation of the current research literature in bioclimatology and biometeorology, for the use of workers in medicine, public health, ecology, agriculture, forestry, botany or zoology, geography, and other fields. The section *Bioclimatology-Biometeorology* will appear within the section "Ecology" in *Biological Abstracts*, and will be under the editorship of Robert G. Stone of the Blue Hill Observatory, Harvard University.

Under the sectional publication plan this material will be found, at present, not only in section A, *Abstracts of General Biology*, but also under section B, *Abstracts of Experimental Animal Biology*, section D, *Abstracts of Plant Sciences*, and section E, *Abstracts of Animal Sciences*.

## BIBLIOGRAPHY

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[RICHMOND T. ZOCH, in Charge of Library]

## RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

## Albright, Joseph Clarence.

Summer weather data with design data, statistics, charts, maps, and technical analysis; compiled and edited by J. C. Albright. 1st ed. [Kansas City, Kans.] The Marley company, 1939. xv, 165 p. incl. illus. (maps), tables, diagrs. 28½ x 22½ cm.

## American forestry association.

Flood control; papers presented at the sixty-second annual meeting of the American forestry association. Cincinnati & Zanesville, Ohio, May 31-June 3, 1937. [Washington, D. C., 1937.] 80 p. 23 cm.

## [Brooks, Donald Bane.]

Psychrometric charts for high and low pressures (from ¼ to 10 atmospheres). New York. [n. d.] 2 p. tables. 30½ cm. (H. & V.'s reference data, 65-66.)

## Cannegieter, H. G.

25 jaar aerologie in Nederland. [Leiden, 1936] p. 824-832. 25 cm. (Overgedrukt uit het tijdschrift van het Koninklijk Nederl. aardrijkskundig genootschap. 2<sup>e</sup> serie deel LIII, 1936, Aflevering 6.)

## De Fina, Armando L.

Las exigencias meteorológicas de los vegetales. Buenos Aires. 1938. p. 187-193. 27½ cm. (De la Revista de la Facultad de agronomía de La Plata (tercera época) tome xxi (1936).)

## Hobeniche, P.

Étude aérologique de la région de Conakry. Paris. 1937. 9 p. plates, tables, diag. (fold.) 25½ cm. (Extrait du Bulletin du Comité d'études historiques et scientifiques de l'Afrique occidentale française. Tome xix, nos. 2-3, avril-septembre 1936.)

Nor sur la climatologie de la côte de Guinée. Paris. 1935. 6 p. tables. 23 cm. (At head of title: Ministère des colonies. Institut national d'agronomie de la France d'Outre-mer.) (Ex-

trait de l'Agronomie coloniale, bulletin mensuel de l'Institut national d'agronomie de la France d'Outre-mer, no. 209, Mai 1935.)

Notes sur divers phénomènes météorologiques en Guinée française. Paris. 1937. 6 p. maps (fold.) 25½ cm. (Extrait du Bulletin du Comité d'études historiques et scientifiques de l'Afrique occidentale française, tome xix, nos. 2-3, avril-septembre 1936.)

## Hull, Hezekiah.

Appendix. Weather chart January 1, 1837-December 15, 1837, Berlin, N. Y. Taken from the diary of Hezekiah Hull. [Berlin, N. Y. 1837.] 8 p. 28½ cm. [Typewritten.]

## Jurva, Risto.

Atlas der Eisverhältnisse des Baltischen Meeres an den Küsten Finnlands. Helsingfors. 1937. 51 p. 41 cm.

## Klappich, Heinz.

Die Oberflächenfeuchte der menschlichen Haut und ihre meteorophysiolgischen Beziehungen. Berlin. 1938. p. 363-386. tables, diagrs. 23 cm. (Sonderdruck. Zeitschrift für die gesamte experimentelle Medizin. 103. Band, 3. Heft.)

## Loew, Adolphus.

Causes of the great natural catastrophes in the U. S. A. Message to his Excellency the President of the United States for the representatives of astronomic science, submitted by Adolphus Loew. Modern theories, explanations, and computations of the glacial period, of the orbit of the earth, of the orbit of the moon. [Reinbach-Basel, 1938.] [23] p. plates. 29½ cm. Various pagings. Mimeographed.

## Lord, Russell.

To hold this soil. [Washington, D. C. 1938.] 122 p. front., plates. 26 cm. (U. S. Dept. of agriculture. Miscellaneous publication no. 321.) Contribution from Soil conservation service. "Recommended reading": p. [123].

## Mitra, S. K., &amp; Rakshit, H.

Distribution of the constituent gases and their pressures in the upper atmosphere. Calcutta. 1938. p. 47-61. tables. 26 cm. (Reprinted from Indian journal of physics, v. 12, pt. 1. March 1938.)

- Ontario.** Hydro-electric power commission. Electric engineering department. Distribution section. Coincident glaze and wind loading of pole lines. [Toronto?] 1937. 6 p. 11 pl. 27½ cm.
- Philippines (Commonwealth). Weather bureau.** Typhoons originating in the China sea, by Rev. Charles E. Depermann, S. J., assistant director, Weather bureau. Manila. 1938. 51 p. incl. illus. (map, charts), tables. 29 cm. At head of title: Commonwealth of the Philippines. Department of agriculture and commerce. Weather bureau. Manila central observatory. "References": p. [21].
- Puig, Ignacio.** Actualidades científicas. 1<sup>a</sup>. serie de artículos publicados en el diario católico argentino "El Pueblo." [Tomo 1. Buenos Aires.] 1938, 200 p. illus. 20 cm. (At head of title: Biblioteca científica del Observatorio de física cósmica de San Miguel.)
- Red Cross. U. S. American national Red cross.** The Ohio-Mississippi valley flood disaster of 1937. Report of relief operations of the American Red cross. Washington, D. C. [1938.] 252 p. front. (fold. map), illus., diagrs. 23 cm. (A. R. C. [circular] 977.) Foreword signed: Norman H. Davis, chairman. Bibliography: p. 248.
- Rhumbler, L.** Windfahnen mit Auf- und Abwind-Anzeiger. p. 387-402. (*In Mitteilungen aus Forstwirtschaft und Forstwissenschaft* . . . 1935, VI. Jahrgang- Heft 4.)
- Rivault, R.** Un nouveau mode d'investigation de l'ionosphère. [Paris. 1937.] 2 p. illus. 28 cm. (Extrait de la Revue générale de l'électricité. Oct. 2, 1937. t. xlvi, p. 435-436.)
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- Rouch, M. J.** Le climat de la Méditerranée. [Paris. n. d.] 282 p. maps. 27 cm. (Commission internationale pour l'exploration scientifique de la Mer Méditerranée. Rapports et procès-verbaux des réunions. v. 11. (nouvelle série) Météorologie. premier rapport.)
- Rymill, John, & others.** Southern lights: the official account of the British Graham land expedition, 1934-1937. With 2 chapters by A. Stephenson, and an historical introduction by Hugh Robert Mill. London. 1938. xv, 295 p. front., illus., plates, ports., maps (part fold.) 26 cm.
- Schafmayer, A. J., & Grant, B. E.** Rainfall intensities and frequencies. New York. 1938. p. 344-401. tables, diagrs. 23 cm. (American society of civil engineers. Paper no. 1989. Reprinted from "Transactions," v. 103.)
- Spaeth, J. N., & Diebold, C. H.** Some interrelationships between soil characteristics, water tables, soil temperature, and snow cover in the forest and adjacent open areas in south-central New York. Ithaca. 1938. 76 p. illus., tables, diagrs. 23 cm. (Cornell university, Agricultural experiment station. Memoir 213. June 1938.)
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